AMENDMENTS TO THE CLAIMS

Claims 1-2.(cancelled)

3.(previously presented):   The method according to claim 22, wherein said first step further includes the steps of:

setting beforehand, in conformity with the system, whether the determination as to whether communication quality is good or bad is to be performed every call or every several calls;

if the determination is to be performed every several calls, storing results of evaluation of communication quality every several calls; and

performing the determination as to whether communication quality is good or bad with regard to a new call by referring to the results of evaluation of communication quality that have been stored.

4.(previously presented):   The method according to claim 22, wherein said first step further includes' the steps of:

setting beforehand, in conformity with the system, capacity of a single test packet and test-packet transmission count;

accumulating delay time with regard to each test packet; and

determining whether communication quality is good or bad based upon a comparison of an average value of accumulated delay time and length of a set time.

5.(previously presented):   A communication device connection method for connecting a

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call originating terminal to a call terminating terminal via an IP network, comprising:

a first step of evaluating communication quality along a route through the IP network from a switching system on an originating side to a switching system on a terminating side when a call originate request has been issued to connect the originating terminal to the terminating terminal via the IP network;

a second step of connecting the originating terminal and the terminating terminal if the communication quality is good; and

if the communication quality is bad, a third step of controlling connection of the communication device in accordance with a command from the caller or controlling connection of the communication device by selecting a route other than the first-mentioned route automatically in accordance with a determination made by a switching system;

wherein said first step further includes the steps of:

storing communication-quality data including packet loss rate that prevailed during a previous call after the previous call ends; and

determining whether communication quality is good or bad by referring to the communication-quality data that has been stored.

6.(previously presented): The method according to claim 5, wherein the communication-quality data is stored for every route and for every day of the week and time period.

7.(original): The method according to claim 5, wherein the communication-quality data is accumulated for every route and whether communication quality is good or bad is determined

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by referring to a value obtained by statistically processing the communication-quality data that has been accumulated.

8.(previously presented): The method according to claim 22, wherein in a case where connection of the communication device is controlled in accordance with a command from the caller, the fact that communication quality is bad is output by voice from the originating terminal to so notify the caller.

9.(currently amended): The method according to claim 22, wherein in a case where connection of the communication device is controlled in accordance with a command from the caller, one of the following control operations is instructed by a command from the user: (1) connection control via the above-mentioned route; (2) connection control via an alternative route through the [[IF]] IP network; (3) connection control through another route via a network other than the [[IF]] IP network; and (4) transmission disconnect control.

10.(currently amended): The method according to claim 22, wherein in a case where connection of the communication device is controlled in accordance with a determination made by the switching system, the system selects an alternative route through the [[IF]] IP network or another route within a network other than the [[IF]] IP network and connects the originating terminal and the terminating terminal via the route selected.

11.(previously presented): The method according to claim 22, wherein said third step further includes the steps of:

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establishing beforehand by agreement with a subscriber, if communication quality is bad, whether (1) connection of the communication device is to be controlled in accordance with a command from the caller or (2) connection of the communication device is to be controlled by selecting a route automatically in accordance with a determination made by the system; and

controlling connection of the communication device based upon the agreement with the subscriber if the communication quality is bad.

Claims 12-13.(cancelled)

14.(previously presented): The apparatus according to claim 23, wherein said quality evaluation means includes:

means for setting beforehand whether the determination as to whether communication quality is good or bad is to be performed every call or every several calls; and

means for storing results of evaluation of communication quality every several calls if the determination is to be performed every several calls;

said quality evaluation means performing the determination as to whether communication quality is good or bad with regard to a new call by referring to the results of evaluation of communication quality that have been stored.

15.(previously presented): The apparatus according to claim 23, wherein said quality evaluation means further includes:

means for setting beforehand capacity of a single test packet and test-packet

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transmission count; and

means for accumulating delay time with regard to each test packet;

said quality evaluation means determining whether communication quality is

good or bad based upon a comparison of a value obtained by statistically

processing delay time that has been accumulated and a set time.

16.(previously presented): A communication device connection apparatus for

connecting a call originating terminal to a call terminating terminal via an [[IF]] IP network,

comprising:

quality evaluation means for evaluating communication quality along a route

through the [[IF]] IP network from a switching system on an originating side to a switching

system on a terminating side when a call originate request has been issued to connect the

originating terminal to the terminating terminal via the [[IF]] IP network;

means for connecting the originating terminal and the terminating terminal if the

communication quality is good;

means for controlling connection of the communication device in accordance with

a command from the caller, and/or means for controlling connection of the communication

device by selecting a route other than the first-mentioned route automatically without relying

upon a command from the caller, if the communication quality is bad;

wherein said quality evaluation means further includes:

means for storing communication-quality data including packet loss rate that

prevailed during a previous call after the previous call ends; and

means for determining whether communication quality is good or bad by referring

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to the communication-quality data that has been stored.

17.(previously presented): The apparatus according to claim 16, wherein the communication-quality data is stored for every route and for every day of the week and time period.

18.(original): The apparatus according to claim 16, wherein the communication-quality data is accumulated in said preservation means for every route, and said quality evaluation means determines whether communication quality is good or bad by referring to a value obtained by statistically processing the communication-quality data that has been accumulated.

19.(previously presented): The apparatus according to claim 23, wherein said means for controlling connection of the communication device in accordance with a command from the caller includes notification means for outputting, by voice, the fact that communication quality is bad to so notify the caller.

20.(currently amended): The apparatus according to claim 23, wherein said means for controlling connection of the communication device in accordance with a command from the caller performs one of the following control operations in response to a command from the caller: (1) connection control via the above-mentioned route; (2) connection control via an alternative route through the [[IF]] IP network; (3) connection control through another route via a network other than the [[IF]] IP network; and (4) transmission disconnect control.

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21.(previously presented): The apparatus according to claim 23, further comprising means for establishing beforehand by agreement with a subscriber, if communication quality is bad, whether (1) connection of the telephone is to be controlled in accordance with a command from the caller or (2) connection of the communication device is to be controlled by selecting a route automatically in accordance with a determination made by the system.

22.(previously presented): A communication device connection method for connecting a call originating terminal to a call terminating terminal via an IP network, comprising:

a first step of setting how to evaluate communication quality;

a second step of evaluating communication quality along a route through the IP network from a switching system on an originating side to a switching system on a terminating side when a call originate request has been issued to connect the originating terminal to the terminating terminal via the IP network;

a third step of connecting the originating terminal and the terminating terminal if the communication quality is good; and

if the communication quality is bad, a fourth step of controlling connection of the communication device in accordance with a command from the caller or controlling connection of the communication device by selecting a route other than the first-mentioned route automatically in accordance with a determination made by a switching system, wherein in a case where said communication quality is evaluated by a pre-call voice-quality measurement mode said second step includes the steps of:

sending a test packet from the switching system on the originating side to the switching system on the terminating side via the route through the IP network before a channel is

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established;

sending an ACK packet from the switching system on the terminating side to the switching system on the originating side in response to receipt of the test packet;

measuring, at the switching system on the originating side, delay time from sending of the test packet to receipt of the ACK packet; and

determining whether communication quality is good or bad based upon a comparison of length of the delay time and length of a set time; and

wherein in a case where said communication quality is evaluated by a past-call voice-quality measurement mode, said second step further includes the steps of:

storing communication-quality data including packet loss rate that prevailed during a previous call after the previous call ends; and

determining whether communication quality is good or bad by referring to the communication-quality data that has been preserved.

23.(currently amended): A communication device connection apparatus for connecting a call originating terminal to a call terminating terminal via an [[IF]] IP network, comprising:

means for setting how to evaluate communication quality;

quality evaluation means for evaluating communication quality along a route through the IP network from a switching system on an originating side to a switching system on a terminating side when a call originate request has been issued to connect the originating terminal to the terminating terminal via the IP network;

means for connecting the originating terminal and the terminating terminal if the

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communication quality is good;

means for controlling connection of the communication device in accordance with

a command from the caller, and/or means for controlling connection of the communication

device by selecting a route other than the first-mentioned route automatically without relying

upon a command from the caller, if the communication quality is bad, wherein in a case where

said communication quality is evaluated by a pre-call voice-quality measurement mode, said

quality evaluation means includes:

means for sending a test packet from the switching system on the originating side

to the switching system on the terminating side via the route through the IP network before a

channel is established;

means for receiving an ACK packet sent from the switching system on the

terminating side in response to receipt of the test packet and measuring delay time from sending

of the test packet to receipt of the ACK packet; and

means for whether communication quality is good or bad based upon a

comparison of length of the delay time and length of a set time, and

wherein in a case where said communication quality is evaluated by a post-call

voice-quality measurement mode, said quality evaluation means further includes:

preservation means for preserving communication-quality data such as packet loss

rate that prevailed during a call after the call ends; and

means for determining whether communication quality is good or bad by referring

to the communication-quality data that has been preserved.

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